WHAT IS CLAIMED IS:

1. A method comprising:

receiving a first control signal to facilitate implementation of a function of a first actuator of an optical pickup unit (OPU);

receiving a second control signal to facilitate implementation of a function of a second actuator of the OPU; and

determining a first modified control signal based upon the first control signal and the second control signal, wherein the first modified control signal facilitates decoupling the second actuator from the first actuator.

2. The method, as recited in Claim 1, further comprising:

determining a second modified control signal based upon the first control signal and the second control signal, wherein the second modified control signal facilitates decoupling the first actuator from the second actuator.

3. The method, as recited in Claim 1, wherein the first actuator comprises a tracking actuator of the OPU.

4. The method, as recited in Claim 3, wherein the second actuator comprises a focus actuator of the OPU.

5. The method, as recited in Claim 1, further comprising:

receiving a third control signal to facilitate implementation of a function of a third actuator of the OPU;

wherein determining the first modified control signal further comprises determining the first modified control signal based upon the first control signal, the second control signal and the third control signal, wherein the first modified control signal facilitates decoupling the first actuator from the second actuator and the third actuator.

6. The method, as recited in Claim 5, wherein the first actuator comprises a fine tracking actuator and the third actuator comprises a gross tracking actuator.

7. The method, as recited in Claim 5, further comprising:

determining the second modified control signal further comprises determining the second modified control signal based upon the second control signal, the first control signal and the third control signal, wherein the second modified control signal facilitates decoupling the second actuator from the first actuator and the third actuator.

8. The method, as recited in Claim 1, wherein determining the first modified control signal further comprises generating a difference signal and modifying the first control signal according to the difference signal and a control law.

9. The method, as recited in Claim 1, wherein determining the first modified control signal further comprises determining the first modified control signal prior to input to an actuator driver.

10. The method, as recited in Claim 1, wherein determining the first modified control signal further comprises modifying the second control signal by a linear value to create a modifier and modifying the first control signal by the modifier.

11. The method, as recited in Claim 1, wherein determining the first modified control signal further comprises modifying the second control signal by a specific process to create a modifier and modifying the first control signal by the modifier.

12. The method, as recited in Claim 1, further comprising:

receiving a first position signal sensed by a first sensor of the OPU wherein the first control signal is based on the first position signal;

receiving a second position signal sensed by a second sensor of the OPU wherein the second control signal is based on the second position signal.

13. An optical drive system comprising:

a first component comprising a first component input and a first component output;

a second component comprising a second component input and a second component output;

a first component control law portion comprising an input coupled to the first component output, and an output;

a second component control law portion comprising an input coupled to the second component output, and an output;

a first component decoupler configured to decouple the first component from the second component, comprising a first input coupled to the first component output and a second input coupled to the second component output, and an output coupled to the first component input; and

a second component decoupler configured to decouple the second component from the first component, comprising a first input coupled to the first component output and a second input coupled to the second component output, and an output coupled to the second component input.

14. The system, as recited in Claim 13, wherein the first component comprises a focus actuator and the second component comprises a tracking actuator.

15. The system, as recited in Claim 13, wherein the first component comprises a focus sensor and the second component comprises a tracking sensor.

16. The system, as recited in Claim 13, wherein the first component control law portion and the first component decoupler are integrated onto an information processing device.

17. The system, as recited in Claim 13, wherein the first component decoupler is integrated onto an actuator driver.

18. A method comprising:

providing a first control signal comprising a first value to a first actuator of an optical pickup unit (OPU);

providing a second control signal comprising a second value to a second actuator of the OPU while providing the first control signal; and

determining a first response of the first actuator based on the step of providing the second control signal.

19. The method, as recited in Claim 18, further comprising:

determining a first decoupling response for decoupling the first actuator from the second actuator during normal operation of the OPU.

20. The method, as recited in Claim 18, wherein the first value represents a known circuit condition as an input of the first actuator.

21. A device comprising:

a first actuator control law portion comprising an input to receive a representation of a first actuator position, and an output;

a second actuator control law portion comprising an input to receive a representation of a second actuator position, and an output;

a first actuator decoupler portion comprising a first input coupled to the output of the first actuator control law portion and a second input coupled to the output of the second actuator control law portion, and an output to provide a signal with decoupling compensation for a first actuator based on the representation of the second actuator position; and

a second actuator decoupler portion comprising a first input coupled to the output of the first actuator control law portion and a second input coupled to the output of the second actuator control law portion, and an output to provide a signal with decoupling compensation for a first actuator based on the representation of the second actuator position.

22. The device, as recited in Claim 21, wherein the first actuator decoupler comprises a linear modification module having an input coupled to the output of the second actuator

control law portion, and an output to provide a linearly scaled representation of a value received at its input; wherein the linearly scaled representation is used to provide the signal with decoupling compensation for the first actuator decoupler.

23. An optical disk drive comprising:

a focus control loop;

a tracking control loop, wherein the focus control loop and the tracking control loop are cross-coupled, wherein a focus control command excites the tracking control loop and a tracking control command excites the focus control loop; and

a decoupler configured to produce a modified focus control command from the focus control command (and the tracking control command, and configured to produce a modified tracking control command based on the tracking control command and the focus control command, wherein the modified focus control command has a different excitation of the tracking control loop than the focus control command and wherein the modified tracking control command has a different excitation of the focus control loop than the tracking control command.

24. The optical disk drive as recited in Claim 23, further comprising:

a lens assembly, wherein the focus loop comprises a focus actuator configured to move the lens assembly in a focus direction.

25. The optical disk drive as recited in Claim 23, further comprising:

a lens assembly, wherein the tracking loop comprises a tracking actuator configured to move the lens assembly in a tracking direction.

26. A method comprising:

determining cross-coupling characteristics of a focus actuator and a tracking actuator of an optical pickup unit; and

determining a decoupling matrix to decouple the focus actuator and the tracking actuator.

27. The method as recited in Claim 26, further comprising:

determining a focus control law variable of the focus actuator, the focus control law variable for determining focus control commands for controlling a focus position of an optical pickup unit; and

determining a tracking control law variable of the tracking actuator, the tracking control law variable for determining tracking control commands for controlling a tracking position of the optical pickup unit.

28. The method as recited in Claim 27, wherein determining the focus control law variable comprises:

determining one or more focus forces to be applied to the focus actuator as the focus control commands; and

measuring the results of the one or more focus forces on the focus position; and

determining gain factors relating to the results of the one or more focus forces on the focus position.

29. The method as recited in Claim 27, wherein determining the tracking control law variable comprises:

determining one or more tracking forces to be applied to the tracking actuator as the tracking control commands; and

measuring the results of the one or more tracking forces on the tracking position; and

determining gain factors relating to the results of the one or more tracking forces on the tracking position.

30. The method as recited in Claim 26, wherein determining the cross-coupling characteristics comprises:

determining one or more focus forces to be applied the focus actuator as the focus control commands;

measuring the results of the one or more focus forces on the tracking position;

determining a specific process relating to the results of the one or more focus forces on the tracking position;

determining one or more tracking forces to be applied to the tracking actuator as the tracking control commands;

measuring the results of the one or more tracking forces on the focus position; and

determining another specific process relating to the results of the one or more tracking forces on the focus position.

31. An optical disk drive comprising:

a lens assembly;

a focus actuator that is configured to move the lens assembly in a focus direction;

a tracking actuator that is configured to move the lens assembly in a tracking direction; and

a decoupler configured to decouple the focus actuator from the tracking actuator.

32. The optical disk drive, as recited in Claim 31, wherein the decoupler modifies a focus command to have a reduced effect on a tracking position of the lens assembly and modifies a tracking command to have a reduced effect on a focus position of the lens assembly.

33. The optical disk drive as recited in Claim 31, wherein the decoupler is a software routine stored on computer readable media.

34. The optical disk drive as recited in Claim 31, wherein the decoupler is an analog circuit.

35. The optical disk drive as recited in Claim 31, wherein the decoupler is an electro-mechanical circuit.

36. An optical disk drive comprising:

means for determining cross-coupling characteristics of a focus actuator and a tracking actuator; and

means for determining a decoupling matrix to decouple the focus actuator and the tracking actuator.

37. The optical disk drive, as recited in Claim 36, further comprising:

means for determining focus control laws of the focus actuator, the focus control laws for determining focus control commands for controlling a focus position of an optical pickup unit; and

means for determining tracking control laws of the tracking actuator, the tracking control laws for determining tracking control commands for controlling a tracking position of the optical pickup unit.